Patent Claims

1. An arrangement with implant (9) and attachment part (11), for example in the form of a dental bridge, in which the attachment part comprises a recessed wall (12a) and the implant is designed or can cooperate with a portion (10b), preferably on a spacer sleeve applied to the implant, which preferably extends substantially parallel to the recessed wall, characterized in that the attachment part and its recessed wall are arranged with displaceability in the main longitudinal direction of the implant relative to the outer surface of the portion, and in that the portion is arranged to be expandable so that in a given position of longitudinal displacement it is possible to achieve interaction between the outer surface of the portion and the recessed wall and thus anchoring of the attachment part to the portion/ the implant.

2. The arrangement as claimed in patent claim 1, characterized in that said portion (12b) is substantially cylinder-shaped and comprises parts (c-j) which extend adjacent to one another and which, during the expansion, can be pressed outward in the radial direction (R), in that the mutually adjacent parts are arranged with internal surfaces which combine to form an internal inner surface (10b''), and in that the portions (10b) are arranged to be expandable by means of a fastening screw (13) which is provided with an outer surface (13b) which can cooperate with said inner surface (10b'''), the mutually adjacent parts being expanded radially as a function of the position of insertion of the screw in the implant.

3. The arrangement as claimed in patent claim 2, characterized in that the portion constitutes front parts of a spacer (10) arranged at or on the upper parts (9b) of the implant.

4. The arrangement as claimed in patent claim 2 or 3, characterized in that the recessed wall (12a) is arranged in a bridge sleeve (12) or directly in a bridge material (11).

5. The arrangement as claimed in any of patent claims 1-4, characterized in that both the recessed wall (12a) and the outer surface (12b') of the portion are substantially cylindrical.

6. The arrangement as claimed in patent claim 4 or 5, characterized in that the spacer sleeve is made of hard titanium (MGA 007) and in that the bridge sleeve is made of soft titanium (MFA 002).

7. The arrangement as claimed in any of patent claims 3-6, characterized in that the parts extending adjacent to one another project into the recess (12) with the recessed wall (12b) by at least 2/3 of their lengths (L').

8. The arrangement as claimed in any of patent claims 3-7, characterized in that the parts extending adjacent to one another have lengths (L') which substantially correspond to or are slightly smaller than the total length (L) of the spacer sleeve.

9. The arrangement as claimed in any of patent claims 2-8, characterized in that the fastening screw (13) is made of gold, and in that the outer surface designed as a truncated cone is located at the head of the screw and is arranged with a half cone angle (α) of ca. 40°C.

10. The arrangement as claimed in any of the preceding patent claims, characterized in that the outer surface (10b'') of the portion is designed with irregularities, for example spikes, by means of which the outer surface(s) cooperate.

11. The arrangement as claimed in any of patent claims 2-10, characterized in that the parts arranged adjacent to one another are arranged, during the expansion, to work with movements of the order of 2/10, 4/10 mm, preferably ca. 3/10 mm, for the purpose of preventing deformation or movements in the material which exceed the modulus of elasticity.

12. A device with two or more implants (19, 16, 17) and an attachment part (11) which can cooperate with these, for example in the form of a bridge, in which the attachment part comprises recesses for application to the implants via portions arranged or applied thereon which are intended to extend into the recesses (12e), characterized in that each recess is arranged to be displaceable in the longitudinal direction of the respective implant relative to the respective portion, in that, upon anchoring of the attachment part to the portions, the longitudinal displacement of the attachment part in relation to the portions (10b) can be determined by means of the relative longitudinal displacement position, for example the end-position of longitudinal displacement, between one of the recesses and the portion cooperating therewith, in that the position or positions arising between other recess(es) or portion(s) form anchoring positions without length displacement-determining function, and in that said portions are arranged to be expandable so as to obtain, in said longitudinal displacement

positions, cooperation between outer surfaces of the portions and the recessed walls and thus multi-point anchoring of the attachment part to the implants.

13. The device as claimed in patent claim 12, characterized in that the portions are situated on the spacer sleeve which is applied on the implant, in that the spacer sleeve at its front or upper end has parts (c-j) which are arranged adjacent to one another and which are arranged to be expandable in substantially the radial directions, and in that the mutually adjacent parts are expandable by means of a fastening screw via external or internal surfaces set at an inclination or designed as truncated cones, the degree of expansion being dependent on the position of insertion of the fastening screw.

14. The device as claimed in patent claim 13, characterized in that the internal spaces of the spacer sleeves and/or of the bridge sleeves constitute spaces for thixotropic bactericidal agent, e.g. hyaluronic acid.